What is claimed is:

1. A method of generating a symbol code composed of symbols manifested as different levels of a plural-level electric signal, said method comprising the steps of:

(a) randomizing a stream of data packets, each having a prescribed first number of bytes therein;

(b) forward-error-correction coding each of said data packets to generate a respective lateral Reed-Solomon code segment that is included as one of successive segments of a data field included in a succession of data fields, each of said lateral Reed-Solomon code segments consisting of said prescribed first number of bytes plus a prescribed second number of parity bytes;

(c) forming groups of said lateral Reed-Solomon code segments containing ones of said data packets that are of at least one prescribed type;

(d) forward-error-correction coding bytes in each of transverse paths through each said group of said lateral Reed-Solomon code segments, thereby to generate a respective transverse Reed-Solomon code further including a respective set of transverse Reed-Solomon code parity bytes;

(e) assembling each said respective set of transverse Reed-Solomon code parity bytes into a prescribed number of further segments of at least one of said data fields, each of which further segments has a prescribed third number of bytes, said prescribed third number being a sum of said prescribed first number and said prescribed second number;

(f) time-division multiplexing, within said data fields, said lateral Reed-Solomon code segments generated in step (b) with said further segments in which said respective sets of transverse Reed-Solomon code parity bytes are assembled in step (e);

(g) convolutionally interleaving the successive segments of said data fields to generate successive segments of convolutionally interleaved data fields;

(h) trellis coding said successive segments of convolutionally interleaved data fields to generate a trellis code;

(i) mapping successive nibbles of said trellis code into respective symbols of said symbol code; and

(j) inserting synchronizing signals into said symbol code.

2. Apparatus constructed for generating symbol code according to the method of claim 1.

3. The method of claim 1, wherein step (d) is performed so that the parity bytes of each of said lateral Reed-Solomon code segments in a group thereof are excluded from each and all of the transverse paths through that said group.

4. The method of claim 1, wherein step (d) is performed so that each byte in the payload portions of data packets in each said group of said lateral Reed-Solomon code segments is included in one of the transverse paths through that said group.

5. The method of claim 4, wherein step (d) is performed so that each byte in the headers of data packets in each said group of said lateral Reed-Solomon code segments is included in one of the transverse paths through that said group.

6. The method of claim 5, wherein step (d) is performed so that each of the parity bytes of each of said lateral Reed-Solomon code segments in a group thereof is included in one of the transverse paths through that said group.

7. The method of claim 3, wherein said step (e) assembles each set of transverse Reed-Solomon code parity bytes into further segments each beginning with a packet identifier (PID) code reserved for such further segments.

8. The method of claim 1, wherein step (d) is performed so that each of the parity bytes of each of said lateral Reed-Solomon code segments in a group thereof is included in one of the transverse paths through that said group.

9. The method of claim 8, wherein said step (e) assembles each set of transverse Reed-Solomon code parity bytes into further segments each beginning with a packet identifier (PID) code reserved for such further segments.

10. The method of claim 1, wherein each group of said lateral Reed-Solomon code segments and the prescribed number of further segments into which the respective set of transverse Reed-Solomon code parity bytes are assembled are included within a single data field.

11. The method of claim 10, wherein the sum of the number of said lateral Reed-Solomon code segments in each said group thereof and the prescribed number of further segments into which the respective set of transverse Reed-Solomon code parity bytes are assembled totals substantially 312.

12. The method of claim 11, wherein the further segments in which each set of transverse Reed-Solomon code parity bytes are assembled are at the conclusion of a respective one of said data fields.

13. The method of claim 12, wherein each set of transverse Reed-Solomon code parity bytes are assembled into the further segments of a respective data field together with other bytes, which other bytes after step (g) of convolutionally interleaving appear at the conclusion of a respective one of said convolutionally interleaved data fields.

14. The method of claim 13, wherein the other bytes in the further segments of each said respective data field are place-holder bytes and said method further comprises a step of:

(k) replacing the trellis-coded place-holder bytes at the conclusions of said convolutionally interleaved data fields with a respective succession of transitional trellis-coding symbols followed by a respective succession of prescribed trellis-coding symbols.

15. The method of claim 10, wherein the sum of the number of said lateral Reed-Solomon code segments in each said group thereof and the prescribed number of further segments into which the respective set of transverse Reed-Solomon code parity bytes are assembled totals substantially 156.

16. The method of claim 10 wherein said step (c) of forming groups of said lateral Reed-Solomon code segments is performed by parsing said stream of data packets into said groups without regard to the particular type of each of those data packets.

17. The method of claim 10 wherein said step (c) of forming groups of said lateral Reed-Solomon code segments is performed after a preliminary step of selecting said lateral Reed-Solomon code segments containing said prescribed type of data packets.

18. The method of claim 17, wherein said step (d) inserts said further segments before the group of said lateral Reed-Solomon code segments to which they relate and after any previous group of said lateral Reed-Solomon code segments containing said prescribed type of data packets, and wherein said step (e) assembles each set of transverse Reed-Solomon code parity bytes into further segments each beginning with a header including a packet identifier(PID) code reserved for such further segments.

19. The method of claim 1, wherein said data packets comprise MPEG-2-compliant data packets, wherein said prescribed first number of bytes is 187 and said prescribed second number of bytes is 20.

20. A method of generating a symbol code composed of symbols manifested as different levels of a plural-level electric signal, said method comprising the steps of:

(a) randomizing a stream of data packets, each having a prescribed first number of bytes therein;

(b) forward-error-correction coding each of said data packets to generate a respective lateral Reed-Solomon code segment that is included as one of successive segments of a data field included in a succession of data fields, each of said lateral Reed-Solomon code segments consisting of said prescribed first number of data bytes plus a prescribed second number of parity bytes;

(c) forming groups of said lateral Reed-Solomon code segments containing ones of said data packets that are of at least one prescribed type;

(d) forward-error-correction coding bytes in each of transverse paths through each said group of said lateral Reed-Solomon code segments, thereby to generate a respective transverse Reed-Solomon code comprising a respective set of transverse Reed-Solomon code parity bytes;

(e) assembling each said respective set of transverse Reed-Solomon code parity bytes into a prescribed number of further packets, which further packets each consist of said prescribed first number of bytes;

(f) forward-error-correction coding each of said further packets to generate a respective two-dimensional Reed-Solomon code segment that is included as one of the successive segments of one of said data fields included in said succession of data fields, each of said two-dimensional Reed-Solomon code segments consisting of said prescribed first number of bytes from a respective one of said further packets plus an additional said prescribed second number of parity bytes;

(g) convolutionally interleaving the successive segments of said data fields to generate successive segments of convolutionally interleaved data fields;

(h) trellis coding said successive segments of convolutionally interleaved data fields to generate a trellis code;

(i) mapping successive nibbles of said trellis code into respective symbols of said symbol code; and

(j) inserting synchronizing signals into said symbol code.

21. Apparatus constructed for generating symbol code according to the method of claim 20.

22. The method of claim 20, wherein step (d) is performed so that the parity bytes of each of said lateral Reed-Solomon code segments in a group thereof are excluded from all of the transverse paths through that said group.

23. The method of claim 22, wherein said step (e) assembles each set of transverse Reed-Solomon code parity bytes into further segments each beginning with a header including packet identifier (PID) code reserved for such further segments.

24. The method of claim 20, wherein step (d) is performed so that the parity bytes of each of said lateral Reed-Solomon code segments in a group thereof are included in a respective one of the transverse paths through that said group.

25. The method of claim 24, wherein said step (e) assembles each set of transverse Reed-Solomon code parity bytes into further segments each beginning with a header including a packet identifier (PID) code reserved for such further segments.

26. The method of claim 20, wherein each group of said lateral Reed-Solomon code segments and the prescribed number of further segments into which the respective set of transverse Reed-Solomon code parity bytes are assembled are included within a single data field.

27. The method of claim 26, wherein the sum of the number of said lateral Reed-Solomon code segments in each said group thereof and the prescribed number of

further segments into which the respective set of transverse Reed-Solomon code parity bytes are assembled totals substantially 312.

28. The method of claim 26, wherein the further segments in which each set of transverse Reed-Solomon code parity bytes are assembled are at the conclusion of a respective one of said data fields.

29. The method of claim 28, wherein each set of transverse Reed-Solomon code parity bytes are assembled into the further segments of a respective data field together with other bytes, which other bytes after step (g) of convolutionally interleaving appear at the conclusion of a respective one of said convolutionally interleaved data fields.

30. The method of claim 29, wherein the other bytes in the further segments of each said respective data field are place-holder bytes and said method further comprises a step of:

(k) replacing the trellis-coded place-holder bytes at the conclusions of said convolutionally interleaved data fields with a respective succession of transitional trellis-coding symbols followed by a respective succession of prescribed trellis-coding symbols.

31. The method of claim 26, wherein the sum of the number of said lateral Reed-Solomon code segments in each said group thereof and the prescribed number of further segments into which the respective set of transverse Reed-Solomon code parity bytes are assembled totals substantially 156.

32. The method of claim 26 wherein said step (c) of forming groups of said lateral Reed-Solomon code segments is performed by parsing said stream of data packets into said groups without regard to the particular type of each of those data packets.

33. The method of claim 26 wherein said step (c) of forming groups of said lateral Reed-Solomon code segments is performed after a preliminary step of selecting said lateral Reed-Solomon code segments containing said prescribed type of data packets.

34. The method of claim 33, wherein said step (d) inserts said further segments before the group of said lateral Reed-Solomon code segments to which they relate and after any previous group of said lateral Reed-Solomon code segments containing said prescribed type of data packets, and wherein said step (e) assembles each set of transverse Reed-Solomon code parity bytes into further segments each beginning with a header including a packet identifier(PID) code reserved for such further segments.

35. The method of claim 20, wherein said data packets comprise MPEG-2-compliant data packets, wherein said prescribed first number of bytes is 187 and said prescribed second number of bytes is 20.

36. A method of generating a symbol code composed of symbols manifested as different levels of a plural-level electric signal, said method comprising the steps of:

(a) forming groups of data packets that are of at least one prescribed type, each of said data packets having a prescribed first number of bytes therein;

(b) randomizing said data packets in said groups;

(c) forward-error-correction coding all bytes in each of transverse paths through each said group of randomized data packets, thereby to generate a respective transverse Reed-Solomon code further including a respective set of transverse Reed-Solomon code parity bytes;

(d) assembling each said respective set of transverse Reed-Solomon code parity bytes into a prescribed number of further data packets, each having said prescribed first number of bytes, a respective super group arising from each said group of said data packets being augmented by said further data packets containing parity bytes of the transverse Reed-Solomon forward-error-correction coding for that said group of said data packets;

(e) time-division multiplexing said data packets of each said group thereof with said further data packets and with still other data packets, each having said prescribed first number of bytes, thereby generating a succession of time-division multiplexed data packets;

(f) forward-error-correction coding each of said succession of time-division multiplexed data packets to generate a respective lateral Reed-Solomon code segment that is included as one of successive segments of a data field included in a succession of data fields, each of said lateral Reed-Solomon code segments consisting of said prescribed first number of bytes plus a prescribed second number of parity bytes;

(g) convolutionally interleaving the successive segments of said data fields to generate successive segments of convolutionally interleaved data fields;

(h) trellis coding said successive segments of convolutionally interleaved data fields to generate a trellis code;

(i) mapping successive nibbles of said trellis code into respective symbols of said symbol code; and

(j) inserting field synchronizing signals and segment synchronizing signals into said symbol code.

37. The method of claim 36, wherein said data packets comprise MPEG-2-compliant data packets, wherein said prescribed first number of bytes is 187 and said prescribed second number of bytes is 20.

38. The method of claim 36, wherein said step (d) assembles each set of transverse Reed-Solomon code parity bytes into further data packets each beginning with a header including a packet identifier (PID) code reserved for such further data packets, and wherein the method of claim 36 further includes a step of:

randomizing the headers of said further data packets, but not their payload portions, prior to said step (f) of forward-error-correction coding each of said succession of time-division multiplexed data packets to generate a respective lateral Reed-Solomon code segment that is included as one of successive segments of a data field included in a succession of data fields.

39. The method of claim 36, wherein said still other data packets used in said step (f) of time-division multiplexing consist of MPEG-2-compliant 187-byte data packets, and, and wherein the method of claim 41 further includes a step of:

(k) randomizing each of said still other data packets throughout all of its portions.

40. The method of claim 36, wherein a first set of said still other data packets used in said step (e) of time-division multiplexing consists of MPEG-2-compliant 187-byte data packets, each of which is randomized throughout all portions thereof, and wherein a second set of said still other data packets include parity bytes for transverse Reed-Solomon forward-error-correction coding of 187-byte data packets in said first set of said still other data packets.

41. The method of claim 40, wherein each of said still other data packets in said second set thereof begins with a header including a packet identifier (PID) code reserved for said still other data packets in said second set thereof, and wherein the method of claim 40 further includes a step of:

randomizing the headers of said still other data packets in said second set thereof, but not their payload portions, prior to said step (f) of forward-error-correction coding each of said succession of time-division multiplexed data packets to generate a respective lateral Reed-Solomon code segment that is included as one of successive segments of a data field included in a succession of data fields.

42. A method of generating a symbol code composed of symbols manifested as different levels of a plural-level electric signal, said method comprising the steps of:

(a) forming successive groups of data packets of at least one prescribed type, each of said data packets having a prescribed first number of bytes therein and including a respective header portion and a respective payload portion;

(b) forward-error-correction coding all bytes in each of transverse paths through each said group of data packets of at least one prescribed type, thereby to generate a respective transverse Reed-Solomon code comprising a respective set of transverse Reed-Solomon code parity bytes;

(c) assembling each said respective set of transverse Reed-Solomon code parity bytes into a prescribed number of further packets, each having said prescribed first number of bytes therein, which further packets each include a respective header portion and a respective payload portion, each said group of data packets formed in step (a) and said further packets assembled from said respective set of transverse Reed-Solomon code parity bytes thereof combining to form a super group of packets;

(d) generating a respective pair of prescribed first number of byte packets from each of said prescribed first number of byte packets in each said super group;

(e) forward-error-correction coding each prescribed first number of byte packet in each of said pairs of prescribed first number of byte packets to generate a respective two-dimensional Reed-Solomon code segment having a prescribed second number of bytes therein that is included as one of successive segments of a succession of data fields;

(f) time-division multiplexing said two-dimensional Reed-Solomon code segments with other segments of said succession of data fields;

(g) convolutionally interleaving the successive segments of said data fields to generate successive segments of convolutionally interleaved data fields;

(h) trellis coding said successive segments of convolutionally interleaved data fields to generate a trellis code;

(i) mapping successive nibbles of said trellis code into respective symbols of said symbol code; and

(j) inserting field synchronizing signals and segment synchronizing signals into said symbol code.

43. The method of claim 42, wherein said data packets comprise MPEG-2-compliant data packets, wherein said prescribed first number of bytes is 187 and said prescribed second number of bytes is 207.

44. The method of claim 42, wherein said step (d) of generating a respective pair of packets from each of said packets in each said super group comprises substeps of:

randomizing the data contained in the respective payload portion of each of said packets in each said super group with a pseudo-random binary sequence that is advanced

by 1496 bits from that specified in the ATSC Digital Television Standard, thereby generating a respective randomization result;

immediately repeating each bit of each randomization result to generate a respective re-sampled randomization result;

employing the header portion of each of said packets in each said super group to generate the header of the first of said respective pair of packets generated therefrom;

employing the initial half of the respective re-sampled randomization result from each of said packets in each said super group as the payload portion of the first of said respective pair of packets generated therefrom;

employing the header portion of each of said packets in each said super group to generate the header of the second of said respective pair of packets generated therefrom;

employing the final half of the respective re-sampled randomization result from each of said packets in each said super group as the payload portion of the second of said respective pair of packets generated therefrom; and

randomizing the header portions of the first and second packets in each respective pair of packets.

45. The method of claim 42, wherein said step (d) of generating a respective pair of packets from each of said packets in each said super group comprises substeps of:

randomizing the data contained in the respective payload portion of each of said packets in each said super group with a pseudo-random binary sequence that is advanced by 1496 bits from that specified in the ATSC Digital Television Standard, thereby generating a respective randomization result;

immediately following each bit of each randomization result with a ONE to generate a respective bit-extended randomization result;

employing the header portion of each of said packets in each said super group to generate the header of the first of said respective pair of packets generated therefrom;

employing the initial half of the respective bit-extended randomization result from each of said packets in each said super group as the payload portion of the first of said respective pair of packets generated therefrom;

employing the header portion of each of said packets in each said super group to generate the header of the second of said respective pair of packets generated therefrom;

employing the final half of the respective bit-extended randomization result from each of said packets in each said super group as the payload portion of the second of said respective pair of packets generated therefrom; and

randomizing the header portions of the first and second packets in each respective pair of packets.

46. The method of claim 42, wherein said other segments of said succession of data fields used in said step (f) of time-division multiplexing consist of randomized MPEG-2-compliant 187-byte data packets.

47. The method of claim 42, wherein a first set of said other segments of said succession of data fields used in said step (f) of time-division multiplexing each contain a respective MPEG-2-compliant 187-byte data packet that is randomized throughout all of its portions, and wherein a second set of said other segments of said succession of data fields include parity bytes for transverse Reed-Solomon forward-error-correction coding of at least the header and payload portions of said first set of said still other segments of said succession of data fields.

48. The method of claim 47, wherein each of said second set of said other segments of said succession of data fields begins with a respective randomized header, which header in a de-randomized state includes a packet identifier (PID) code reserved for said other segments in said second set thereof, said header of each of said other segments of said succession of data fields in said second set thereof being the only randomized portion thereof.

49. A receiver for digital television signals employing transverse Reed-Solomon forward-error-correction coding in addition to lateral Reed-Solomon forward-error-correction coding and trellis coding, said receiver comprising:

apparatus for receiving digital television signals and converting them to a baseband digital signal including successive segments of trellis-coded baseband digital signal;

a trellis decoder connected for responding to said successive segments of said trellis-coded baseband digital signal to supply successive segments of a convolutionally interleaved trellis-decoding result;

a de-interleaver connected for receiving said convolutionally interleaved trellis-decoding result and de-interleaving it to supply successive segments of de-interleaved data fields as a de-interleaver response;

error-correction circuitry connected for performing Reed-Solomon decoding and error-correction procedures on said successive segments of said de-interleaved data fields, thereby to regenerate respective successive segments of an error-corrected randomized baseband digital signal, said error-correction circuitry being of a type for performing two-dimensional Reed-Solomon decoding and error-correction procedures on at least selected ones of said successive segments of said de-interleaved data fields; and

a first data de-randomizer connected for responding to said successive segments of said error-corrected randomized baseband digital signal to regenerate a transport stream of data packets.

50. The receiver of claim 49, wherein said error-correction circuitry comprises:

a decoder for transverse Reed-Solomon forward-error-correction coding;

a decoder for lateral Reed-Solomon forward-error-correction coding, connected for supplying said successive segments of said error-corrected randomized baseband digital signal to said first data de-randomizer; and

random-access memory for temporarily storing in respective first and second banks thereof respective super groups of successive data segments extracted from said de-interleaver response, said first and second banks of said random-access memory connected for successive cycles of read-then-write-over operation, which cycles are considered for purposes of claiming to be ordinally numbered in order of their occurrence in time, said first bank of said random-access memory connected for having each successive segment of the super group temporarily stored therein laterally scanned during odd-numbered cycles of read-then-overwrite operation for reading to said decoder for lateral Reed-Solomon forward-error-correction coding and for then being overwritten by a fresh segment of said de-interleaver response, said first bank of said random-access memory connected for having the super group temporarily stored therein transversely scanned during even-numbered cycles of read-then-overwrite operation for reading to said decoder for transverse Reed-Solomon forward-error-correction coding and for then being overwritten by corrected transverse Reed-Solomon forward-error-correction coding from said decoder for transverse Reed-Solomon forward-error-correction coding, said second bank of said random-access memory connected for having each successive segment of the super group temporarily stored therein laterally scanned during even-numbered cycles of read-then-overwrite operation for reading to said decoder for lateral Reed-Solomon forward-error-correction coding and for then being overwritten by

a fresh segment of said de-interleaver response, said second bank of said random-access memory connected for having the super group temporarily stored therein transversely scanned during odd-numbered cycles of read-then-overwrite operation for reading to said decoder for transverse Reed-Solomon forward-error-correction coding and for then being overwritten by corrected transverse Reed-Solomon forward-error-correction coding from said decoder for transverse Reed-Solomon forward-error-correction coding.

51. The receiver of claim 50 further comprising:

a plurality of packet decoders for different types of data packets; and

a transport stream de-multiplexer connected for receiving said transport stream from said first data de-randomizer and for sorting data packets of different types from said transport stream to appropriate ones of said plurality of packet decoders.

52. The receiver of claim 50, wherein said decoder for transverse Reed-Solomon forward-error-correction coding is selected from a plurality of decoders, each for decoding a respective one of different transverse Reed-Solomon forward-error-correction codes.

53. The receiver of claim 50, wherein each said super group contains substantially 312 data segments.

54. The receiver of claim 50, wherein each said super group contains substantially 156 data segments.

55. The receiver of claim 49, wherein said error-correction circuitry comprises:

a first decoder for lateral Reed-Solomon forward-error-correction coding, connected for correcting said successive segments of said de-interleaver response to generate respective successive segments of a de-interleaver response with initial lateral Reed-Solomon error-correction;

a second decoder for lateral Reed-Solomon forward-error-correction coding, connected for supplying said successive segments of said error-corrected randomized baseband digital signal to said first data de-randomizer;

a decoder for transverse Reed-Solomon forward-error-correction coding; and

random-access memory for temporarily storing in respective first and second banks thereof respective super groups of successive data segments extracted from said de-interleaver response with initial lateral Reed-Solomon error-correction, said first and second banks of said random-access memory connected for successive cycles of read-then-write-over operation, which cycles are considered for purposes of claiming to be ordinally numbered in order of their occurrence in time, said first bank of said random-access memory connected for having each successive segment of the super group temporarily stored therein laterally scanned during odd-numbered cycles of read-then-overwrite operation for reading to said second decoder for lateral Reed-Solomon forward-error-correction coding and for then being overwritten by a fresh segment of said de-interleaver response with initial lateral Reed-Solomon error-correction supplied from said first decoder for lateral Reed-Solomon forward-error-correction coding, said first bank of said random-access memory connected for having the super group temporarily stored therein transversely scanned during even-numbered cycles of read-then-overwrite operation for reading to said decoder for transverse Reed-Solomon forward-error-correction coding and for then being overwritten by corrected transverse Reed-Solomon forward-error-correction coding from said decoder for transverse Reed-Solomon forward-error-correction coding, said second bank of said random-access memory connected for having each successive segment of the super group temporarily stored therein laterally scanned during even-numbered cycles

of read-then-overwrite operation for reading to said second decoder for lateral Reed-Solomon forward-error-correction coding and for then being overwritten by a fresh segment of said de-interleaver response with initial lateral Reed-Solomon error-correction supplied from said first decoder for lateral Reed-Solomon forward-error-correction coding,

said second bank of said random-access memory connected for having the super group temporarily stored therein transversely scanned during odd-numbered cycles of read-then-overwrite operation for reading to said decoder for transverse Reed-Solomon forward-error-correction coding and for then being overwritten by corrected transverse Reed-Solomon forward-error-correction coding from said decoder for transverse Reed-Solomon forward-error-correction coding.

56. The receiver of claim 55, further comprising:

a plurality of packet decoders for different types of data packets; and

a transport stream de-multiplexer connected for receiving said transport stream from said first data de-randomizer and for sorting data packets of different types from said transport stream to appropriate ones of said plurality of packet decoders.

57. The receiver of claim 55, wherein said decoder for transverse Reed-Solomon forward-error-correction coding is selected from a plurality of decoders, each for decoding a respective one of different transverse Reed-Solomon forward-error-correction codes.

58. The receiver of claim 55, wherein each said super group contains substantially 312 data segments.

59. The receiver of claim 55, wherein each said super group contains substantially 156 data segments.

60. The receiver of claim 55, wherein said first decoder for lateral Reed-Solomon forward-error-correction coding is connected for supplying indications when it is unable to correct all errors in any segment of said de-interleaver response, and wherein said decoder for transverse Reed-Solomon forward-error-correction coding is of a type that is connected for receiving said indications and using them in locating errors in transverse Reed-Solomon forward-error-correction codes.

61. The receiver of claim 49, wherein said error-correction circuitry comprises:

a first decoder for lateral Reed-Solomon forward-error-correction coding, connected for correcting said successive segments of said de-interleaver response to generate respective successive segments of de-interleaver response with initial lateral Reed-Solomon error-correction;

a second decoder for lateral Reed-Solomon forward-error-correction coding, connected for supplying said successive segments of said error-corrected randomized baseband digital signal to said first data de-randomizer;

a plurality of decoders for transverse Reed-Solomon forward-error-correction coding, each of which decodes transverse Reed-Solomon forward-error-correction coding of a respective different type from the others;

a second data de-randomizer connected for de-randomizing at least the randomized packet identifier (PID) bits in each of said successive segments of said de-interleaver response with initial lateral Reed-Solomon error-correction;

a plurality of correlation filters connected for receiving from said second data de-randomizer the de-randomized packet identifier bits in each of said successive segments of said de-interleaver response with initial lateral Reed-Solomon error-correction, each of said correlation filters designed for responding to a respective set of packet identifier bits indicative of a respective type of transverse Reed-Solomon forward-error-correction coding being used;

a position-code latch for temporarily storing the respective responses of said plurality of correlation filters until the conclusion of a data field, thereby to generate a position code descriptive of said respective type of transverse Reed-Solomon forward-error-correction coding being used in that data field;

a shift register connected for receiving each successive position code temporarily stored until the conclusion of a data field and temporarily storing it throughout the duration of at least one further data field;

operations control circuitry responsive to each said position code stored in said shift register for selecting one of said plurality of decoders for transverse Reed-Solomon forward-error-correction coding to be the only currently utilized decoder for transverse Reed-Solomon forward-error-correction coding; and

random-access memory for temporarily storing in respective first and second banks thereof respective super groups of successive data packets extracted from said de-interleaver response with initial lateral Reed-Solomon error-correction, said first and second banks of said random-access memory connected for successive cycles of read-then-write-over operation, which cycles are considered for purposes of claiming to be ordinally numbered in order of their occurrence in time, said first bank of said random-access memory connected for having each successive segment of the super group temporarily stored therein laterally scanned during odd-numbered cycles of read-then-overwrite operation for reading to said second decoder for lateral Reed-Solomon forward-error-correction coding and for then being overwritten by a fresh segment of said de-interleaver response with initial lateral Reed-Solomon

error-correction supplied from said first decoder for lateral Reed-Solomon forward-error-correction coding,

said first bank of said random-access memory connected for having the super group temporarily stored therein transversely scanned during even-numbered cycles of read-then-overwrite operation for reading to said currently utilized decoder for transverse Reed-Solomon forward-error-correction coding and for then being overwritten by corrected transverse Reed-Solomon forward-error-correction coding from said currently utilized decoder for transverse Reed-Solomon forward-error-correction coding, said second bank of said random-access memory connected for having each successive segment of the super group temporarily stored therein laterally scanned during even-numbered cycles of read-then-overwrite operation for reading to said second decoder for lateral Reed-Solomon forward-error-correction coding and for then being overwritten by a fresh segment of said de-interleaver response with initial lateral Reed-Solomon error-correction supplied from said first decoder for lateral Reed-Solomon forward-error-correction coding, said second bank of said random-access memory connected for having the super group temporarily stored therein transversely scanned during odd-numbered cycles of read-then-overwrite operation for reading to said currently utilized decoder for transverse Reed-Solomon forward-error-correction coding and for then being overwritten by corrected transverse Reed-Solomon forward-error-correction coding from said currently utilized decoder for transverse Reed-Solomon forward-error-correction coding.

62. The receiver of claim 61, further comprising:

a plurality of packet decoders for different types of data packets; and

a transport stream de-multiplexer connected for receiving said transport stream from said first data de-randomizer and for sorting data packets of different types from said transport stream to appropriate ones of said plurality of packet decoders.

63. The receiver of claim 49, further comprising:

a first packet decoder, said first packet decoder being of MPEG-2 type for use in decoding video data packets;

a transport stream de-multiplexer connected for receiving said transport stream from said first data de-randomizer and for sorting video data packets from said transport stream to said first packet decoder;

a second packet decoder; and

a second data de-randomizer connected for receiving an input signal composed of randomized data packets and responding to those said randomized data packets to supply de-randomized data packets to said second packet decoder.

64. The receiver of claim 63, wherein said error-correction circuitry comprises:

first and second decoders for lateral Reed-Solomon forward-error-correction coding, said first decoder for lateral Reed-Solomon forward-error-correction coding connected for correcting said successive segments of said de-interleaver response to generate respective successive segments of a de-interleaver response with initial lateral Reed-Solomon error-correction, said first decoder for lateral Reed-Solomon forward-error-correction coding connected for supplying said first data de-randomizer said successive segments of said error-corrected randomized baseband digital signal, said second decoder for lateral Reed-Solomon forward-error-correction coding connected for supplying said second data de-randomizer its said input signal composed of randomized data packets;

a decoder for transverse Reed-Solomon forward-error-correction coding; and

random-access memory for temporarily storing in respective first and second banks thereof respective super groups of data segments extracted from said de-interleaver response with initial lateral Reed-Solomon error-correction, said first and second banks

of said random-access memory connected for successive cycles of read-then-write-over operation, which cycles are considered for purposes of claiming to be ordinally numbered in order of their occurrence in time, said first bank of said random-access memory connected for having each successive segment of the super group temporarily stored therein laterally scanned during odd-numbered cycles of read-then-overwrite operation for reading to said second decoder for lateral Reed-Solomon forward-error-correction coding and for then being overwritten by a fresh segment of said de-interleaver response with initial lateral Reed-Solomon error-correction,

said first bank of said random-access memory connected for having the super group temporarily stored therein transversely scanned during even-numbered cycles of read-then-overwrite operation for reading to said decoder for transverse Reed-Solomon forward-error-correction coding and for then being overwritten by corrected transverse Reed-Solomon forward-error-correction coding from said decoder for transverse Reed-Solomon forward-error-correction coding, said second bank of said random-access memory connected for having each successive segment of the super group temporarily stored therein laterally scanned during even-numbered cycles of read-then-overwrite operation for reading to said second decoder for lateral Reed-Solomon forward-error-correction coding and for then being overwritten by a fresh segment of said de-interleaver response with initial lateral Reed-Solomon error-correction, said second bank of said random-access memory connected for having the super group temporarily stored therein transversely scanned during odd-numbered cycles of read-then-overwrite operation for reading to said decoder for transverse Reed-Solomon forward-error-correction coding and for then being overwritten by corrected transverse Reed-Solomon forward-error-correction coding from said decoder for transverse Reed-Solomon forward-error-correction coding.

65. The receiver of claim 64, wherein said super groups of data segments extracted from said de-interleaver response with initial lateral Reed-Solomon error-correction are composed of audio data packets and packets containing parity bytes of transverse

Reed-Solomon forward-error-correction coding of said audio packets, and wherein said second packet decoder is of AC-3 type for use in decoding audio data packets.

66. The receiver of claim 63, wherein said error-correction circuitry comprises:

first, second and third decoders for lateral Reed-Solomon forward-error-correction coding, said first decoder for lateral Reed-Solomon forward-error-correction coding connected for correcting said successive segments of said de-interleaver response to generate respective successive segments of a de-interleaver response with initial lateral Reed-Solomon error-correction, said second decoder for lateral Reed-Solomon forward-error-correction coding connected for supplying said successive segments of said error-corrected randomized baseband digital signal to said first data de-randomizer, said third decoder for lateral Reed-Solomon forward-error-correction coding connected for supplying said second data de-randomizer its said input signal composed of randomized data packets;

a plurality of decoders for transverse Reed-Solomon forward-error-correction coding;

first Reed-Solomon forward-error-correction decoder application circuitry connected for selecting one of said plurality of decoders for transverse Reed-Solomon forward-error-correction coding to be used in first transverse Reed-Solomon forward-error-correction decoding operations;

second Reed-Solomon forward-error-correction decoder application circuitry connected for selecting one of said plurality of decoders for transverse Reed-Solomon forward-error-correction coding to be used in second transverse Reed-Solomon forward-error-correction decoding operations;

a first random-access memory for temporarily storing in respective first and second banks thereof respective super groups of data segments extracted from said de-interleaver response with initial lateral Reed-Solomon error-correction, said first and

second banks of said first random-access memory connected for successive cycles of read-then-write-over operation used in said first transverse Reed-Solomon forward-error-correction decoding operations, which cycles are considered for purposes of claiming to be ordinally numbered in order of their occurrence in time, said first bank of said first random-access memory connected for having each successive segment of the super group temporarily stored therein laterally scanned during odd-numbered cycles of read-then-overwrite operation for reading to said second decoder for lateral Reed-Solomon forward-error-correction coding and for then being overwritten by a fresh segment of said de-interleaver response with initial lateral Reed-Solomon error-correction, said first bank of said first random-access memory connected for having the super group temporarily stored therein transversely scanned during even-numbered cycles of read-then-overwrite operation for reading to the one of said plurality of decoders for transverse Reed-Solomon forward-error-correction coding selected to be used in said first transverse Reed-Solomon forward-error-correction decoding operations and for then being overwritten by corrected transverse Reed-Solomon forward-error-correction coding from said decoder selected to be used in said first transverse Reed-Solomon forward-error-correction decoding operations, said second bank of said first random-access memory connected for having each successive segment of the super group temporarily stored therein laterally scanned during even-numbered cycles of read-then-overwrite operation for reading to said second decoder for lateral Reed-Solomon forward-error-correction coding and for then being overwritten by a fresh segment of said de-interleaver response with initial lateral Reed-Solomon error-correction,

said second bank of said first random-access memory connected for having the super group temporarily stored therein transversely scanned during odd-numbered cycles of read-then-overwrite operation for reading to the one of said plurality of decoders for transverse Reed-Solomon forward-error-correction coding selected to be used in said first transverse Reed-Solomon forward-error-correction decoding operations and for then being overwritten by corrected transverse Reed-Solomon forward-error-correction coding from said decoder selected to be used in said first transverse Reed-Solomon forward-error-correction decoding operations; and

a second random-access memory for temporarily storing in respective first and second banks thereof respective super groups of data segments extracted from said error-corrected randomized baseband digital signal generated by said second decoder for lateral Reed-Solomon forward-error-correction coding, said first and second banks of said second random-access memory connected for successive cycles of read-then-write-over operation used in said second transverse Reed-Solomon forward-error-correction decoding operations, which cycles are considered for purposes of claiming to be ordinally numbered in order of their occurrence in time, said first bank of said second random-access memory connected for having each successive segment of the super group temporarily stored therein laterally scanned during odd-numbered cycles of read-then-overwrite operation for reading to said third decoder for lateral Reed-Solomon forward-error-correction coding and for then being overwritten by a fresh segment of said error-corrected randomized baseband digital signal generated by said second decoder for lateral Reed-Solomon forward-error-correction coding, said first bank of said second random-access memory connected for having the super group temporarily stored therein transversely scanned during even-numbered cycles of read-then-overwrite operation for reading to the one of said plurality of decoders for transverse Reed-Solomon forward-error-correction coding selected to be used in said second transverse Reed-Solomon forward-error-correction decoding operations and for then being overwritten by corrected transverse Reed-Solomon forward-error-correction coding from said decoder selected to be used in said second transverse Reed-Solomon forward-error-correction decoding operations,

said second bank of said second random-access memory connected for having each successive segment of the super group temporarily stored therein laterally scanned during even-numbered cycles of read-then-overwrite operation for reading to said third decoder for lateral Reed-Solomon forward-error-correction coding and for then being overwritten by a fresh segment of said error-corrected randomized baseband digital signal generated by said second decoder for lateral Reed-Solomon forward-error-correction coding, said second bank of said second random-access memory connected for having the super group temporarily stored therein transversely scanned during odd-numbered cycles of read-then-overwrite operation for reading to the one of said plurality of decoders for

transverse Reed-Solomon forward-error-correction coding selected to be used in said second transverse Reed-Solomon forward-error-correction decoding operations and for then being overwritten by corrected transverse Reed-Solomon forward-error-correction coding from said decoder selected to be used in said second transverse Reed-Solomon forward-error-correction decoding operations.

67. The receiver of claim 65, wherein the super groups temporarily stored in said first random-access memory correspond to respective data fields.

68. The receiver of claim 65, wherein the super groups temporarily stored in said first random-access memory correspond to respective halves of data fields.

69. The receiver of claim 65, wherein said super groups of data segments extracted from said de-interleaver response with initial lateral Reed-Solomon error-correction are composed of audio data packets and packets containing parity bytes of transverse Reed-Solomon forward-error-correction coding of said audio packets, and wherein said second packet decoder is of AC-3 type for use in decoding audio data packets.

70. The receiver of claim 49, further comprising:

a plurality of packet decoders for different types of data packets; and

a transport stream de-multiplexer connected for receiving said transport stream from said first data de-randomizer and for sorting data packets of different types from said transport stream to appropriate ones of said plurality of packet decoders.

71. The receiver of claim 70, wherein said error-correction circuitry comprises:

a first decoder for lateral Reed-Solomon forward-error-correction coding, connected for correcting said successive segments of said de-interleaver response to generate respective successive segments of a de-interleaver response with initial lateral Reed-Solomon error-correction;

a second decoder for lateral Reed-Solomon forward-error-correction coding, connected for supplying said successive segments of said error-corrected randomized baseband digital signal to said first data de-randomizer;

a plurality of decoders for transverse Reed-Solomon forward-error-correction coding;

Reed-Solomon forward-error-correction decoder application circuitry connected for selecting one of said plurality of decoders for transverse Reed-Solomon forward-error-correction coding to be used in transverse Reed-Solomon forward-error-correction decoding operations; and

random-access memory for temporarily storing in respective first and second banks thereof respective super groups of successive data segments extracted from said de-interleaver response with initial lateral Reed-Solomon error-correction,

said first and second banks of said random-access memory connected for successive cycles of read-then-write-over operation, which cycles are considered for purposes of claiming to be ordinally numbered in order of their occurrence in time, said first bank of said random-access memory connected for having each successive segment of the super group temporarily stored therein laterally scanned during odd-numbered cycles of read-then-overwrite operation for reading to said second decoder for lateral Reed-Solomon forward-error-correction coding and for then being overwritten by a fresh segment of said de-interleaver response with initial lateral Reed-Solomon error-correction supplied from said first decoder for lateral Reed-Solomon forward-error-correction coding, said first bank of said random-access memory connected for having the super group temporarily stored therein transversely scanned during